

GSDSK32C Series

Surface Mount Schottky Barrier Rectifiers

Product Description

Reverse Voltage 20V to 150V
Forward Current 3.0A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- High current capacity
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier. majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- Halogen-free parts.

Mechanical Data

- Case : Molded plastic, DO-214AB(SMC)
- Terminals : Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
- Polarity : Color band denotes cathode end

Packages



SMC

Ordering Information



Part Number	Package	Quantity Reel
GSDSK3XCF	SMC	3000 PCS

Marking Information

P/N	Part Marking	Package
GSDSK32CF	SK32	SMC (DO-214AB)
GSDSK33CF	SK33	SMC (DO-214AB)
GSDSK34CF	SK34	SMC (DO-214AB)
GSDSK35CF	SK35	SMC (DO-214AB)
GSDSK36CF	SK36	SMC (DO-214AB)
GSDSK38CF	SK38	SMC (DO-214AB)
GSDSK39CF	SK39	SMC (DO-214AB)
GSDSK310CF	SK310	SMC (DO-214AB)
GSDSK315CF	SK315	SMC (DO-214AB)

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%.

Symbol	Conditions	GSDSK32CF	GSDSK33CF	GSDSK34CF	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	20	30	40	V
V_{RMS}	Maximum RMS Voltage	14	21	28	V
V_{DC}	Maximum DC Blocking Voltage	20	30	40	V
V_F	Maximum Instantaneous $I_F=3.0A$ (Note 1)	0.55			V
I_F	Maximum Average Forward Rectified Current	3.0			A
I_{FSM}	Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	80			A
I_R	Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_A=25^{\circ}C$	0.5		mA
		$T_A=100^{\circ}C$	20		
$R_{\theta JA}$	Typical Thermal Resistance (Note 2)	55			$^{\circ}C/W$
$R_{\theta JL}$		17			$^{\circ}C/W$
T_J	Operating Junction Temperature Range	-55 to +125			$^{\circ}C$
T_{STG}	Storage Temperature Range	-55 to +150			$^{\circ}C$

Notes 1 : Pulse test: 300μs pulse width, 1% duty cycle.

Notes 2 : P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) copper pad areas.

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%.

Symbol	Conditions	GSDSK35CF	GSDSK36CF	GSDSK38CF	Unit
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	50	60	80	V
V _{RMS}	Maximum RMS Voltage	35	42	56	V
V _{DC}	Maximum DC Blocking Voltage	50	60	80	V
V _F	Maximum Instantaneous I _F =3.0A (Note 1)	0.75		0.85	V
Symbol	Conditions	GSDSK39CF	GSDSK310CF	GSDSK315CF	Unit
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	90	100	150	V
V _{RMS}	Maximum RMS Voltage	64	71	105	V
V _{DC}	Maximum DC Blocking Voltage	90	100	150	V
V _F	Maximum Instantaneous I _F =3.0A (Note 1)	0.85		0.95	V
I _F	Maximum Average Forward Rectified Current	3.0			A
I _{FSM}	Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	80			A
I _R	Maximum DC Reverse Current At Rated DC Blocking Voltage	T _A = 25°C	0.5		mA
		T _A = 100°C	20		
R _{θJA}	Typical Thermal Resistance (Note 2)	55			°C/W
R _{θJL}		17			°C/W
T _J	Operating Junction Temperature Range	-55 to +150			°C
T _{STG}	Storage Temperature Range	-55 to +150			°C

Notes 1 : Pulse test: 300µs pulse width, 1% duty cycle.

Notes 2 : P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) copper pad areas.

Typical Characteristics

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

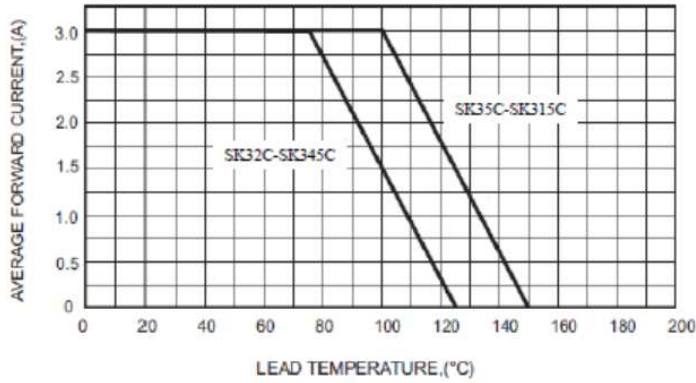


FIG.2-TYPICAL FORWARD CHARACTERISTICS

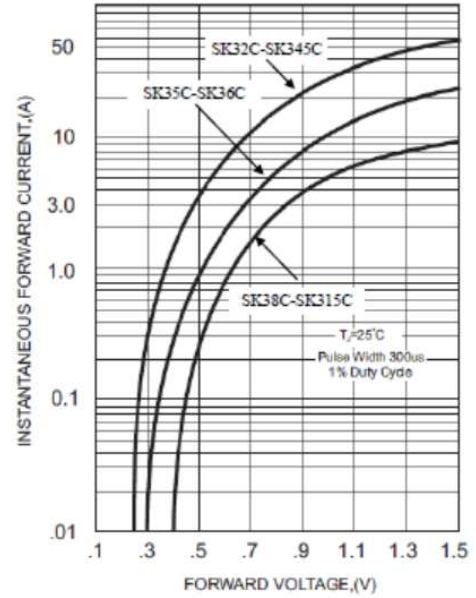


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

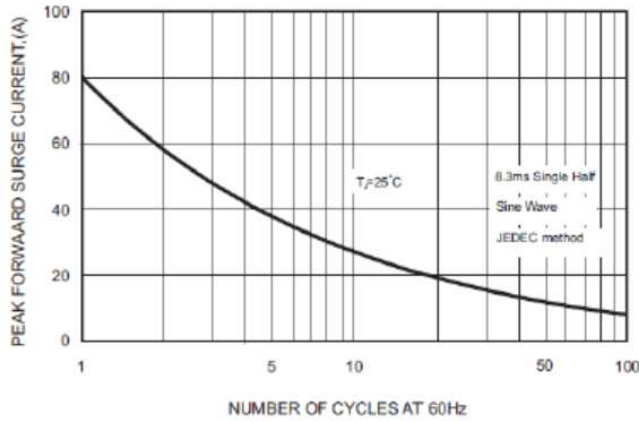


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

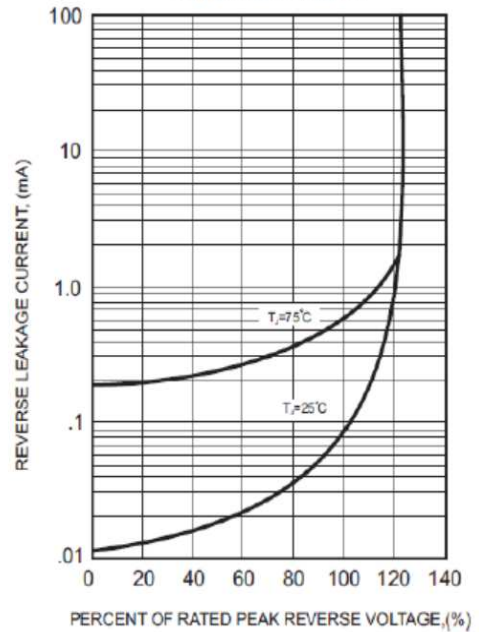
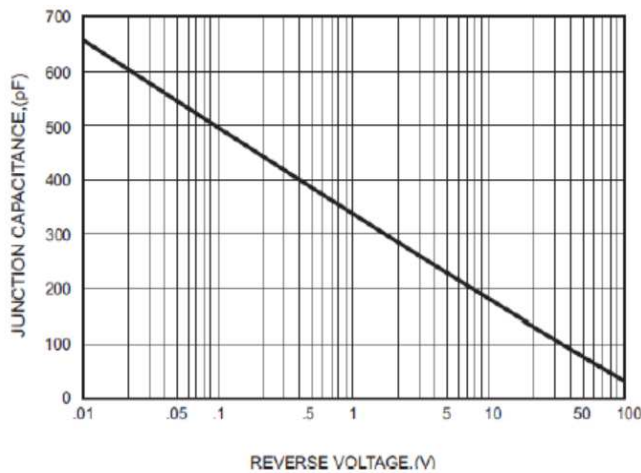
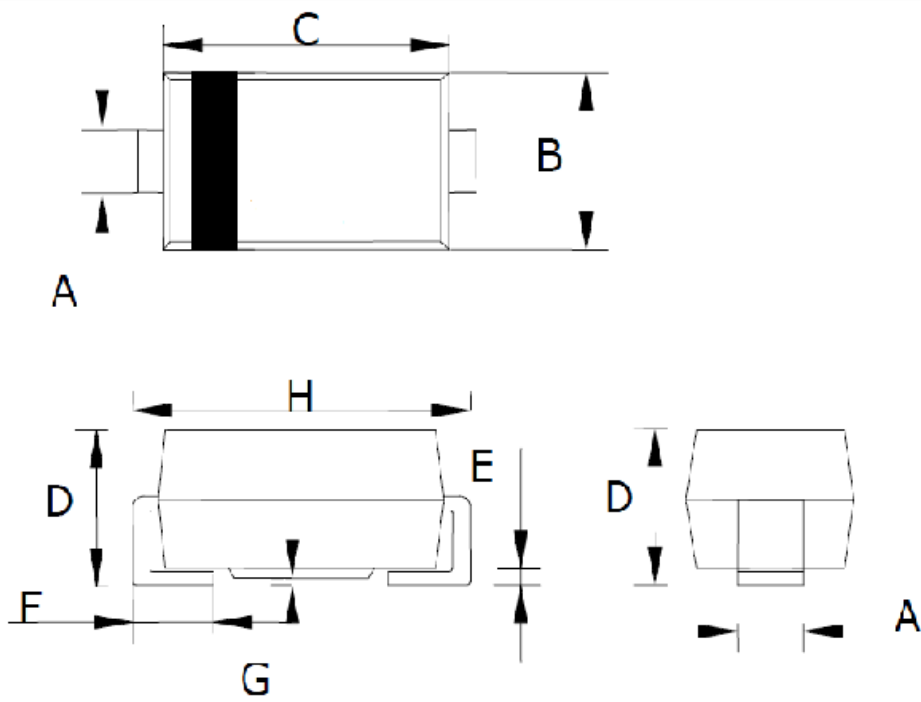


FIG.4-TYPICAL JUNCTION CAPACITANCE



Package Dimension

SMC (DO-214AB)









Dimensions				
SYMBOL	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	2.75	3.25	0.108	0.128
B	5.50	6.20	0.217	0.244
C	6.50	7.11	0.256	0.280
D	2.10	2.70	0.083	0.106
E	0.051	0.203	0.002	0.008
F	0.90	1.52	0.035	0.060
G	-	0.203	-	0.008
H	7.40	8.40	0.291	0.331

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